

AMENDMENTS TO THE CLAIMS

LISTING OF CLAIMS:

1. (Currently Amended) A terminal for displaying application program information in a windowing environment comprising:

a processor adapted to receive windowing information supplied by application programs executing on a remotely located application server, the application programs resident on the server;

a display configured to display the windowing information supplied by the application programs executing on the server; and

means for simultaneously maintaining more than one connection for the application programs between the terminal and server,

wherein the terminal does not execute locally the windowing information.

2. (Original) The terminal of Claim 1 wherein the multiple connections means includes:

means for establishing more than one virtual machine on the terminal, each virtual machine running an open session.

3. (Previously Presented) The terminal of Claim 1 wherein the terminal includes a foreground and a background, and the multiple connections means includes:

means for stopping and redisplaying writing of a screen when a session is moved to the background without saving the screen in memory.

4. (Previously Presented) The terminal of Claim 3 wherein the multiple connections means further includes virtual machines,

wherein at least one of the virtual machines has a text buffer so when the at least one of the virtual machines is in the background it has a virtual buffer that it can write to and it continues to run in the background;

wherein at least one of the virtual machines sends a signal to a graphics application, and the application sends a signal out to the server to command it to stop sending display when the application is switched to the background so that traffic relating to the graphics application between the terminal and server is stopped; and the server is commanded to redisplay the screen when the application is switched back to the foreground.

5. (Previously Presented) The terminal of Claim 1 wherein the multiple connections means includes a virtual machine,

wherein the virtual machine stops sending and receiving data to and from the server when an application resides in a background session, the virtual machine commanding the server to refresh the data for the application when the application is switched to a foreground.

6. (Currently Amended) A utility for displaying application program information in a windowing environment on a terminal having a processor, the utility comprising a remotely located application server for executing application programs resident on the server and for supplying windowing information of the application programs to the terminal, the terminal having a display configured for displaying the windowing information, the utility further comprising:

means for simultaneously maintaining more than one connection for the application programs between the terminal and server,

wherein the terminal does not execute locally the windowing information.

7. (Original) The utility of Claim 6 wherein the multiple connections means includes:

means for establishing more than one virtual machine on the terminal, each virtual machine running an open session.

8. (Previously Presented) The utility of Claim 6 wherein the terminal includes a foreground and a background and the multiple connections means includes:

means for stopping and redisplaying the writing of a screen when a session is moved to the background without saving the screen in memory.

9. (Previously Presented) The utility of Claim 8 wherein the multiple connections means further includes virtual machines,

wherein at least one of the virtual machines has a text buffer so when the at least one of the virtual machines is in the background it has a virtual buffer that it can write to and it continues to run in the background;

wherein at least one of the virtual machines sends a signal to a graphics application, and the application sends a signal out to the server to command it to stop sending display when the application is switched to the background so that traffic relating to the graphics application between the terminal and server is stopped; and the server is commanded to redisplay the screen when the application is switched back to the foreground.

10. (Previously Presented) The utility of Claim 6 wherein the multiple connections means includes a virtual machine,

wherein the virtual machine stops sending and receiving data to and from the server when an application resides in a background session, the virtual machine commanding the server to refresh the data for the application when the application is switched to a foreground.

11. (Currently Amended) A method for displaying application program information in a windowing environment comprising the steps ~~of~~ for:

receiving at a terminal windowing information supplied by application programs executing on a remotely located application server, the application programs resident on the server;

displaying at the terminal the windowing information supplied by the application programs executing on the server; and

simultaneously maintaining more than one connection for the application programs between the terminal and server,

wherein the terminal is adapted to receive the windowing information,

wherein the terminal is configured to display the windowing information, and

wherein the terminal does not execute locally the windowing information.

12. (Previously Presented) The method of Claim 11 wherein the simultaneously maintaining step includes:

establishing more than one virtual machine on the terminal, each virtual machine running an open session.

13. (Previously Presented) The method of Claim 11 wherein the terminal includes a foreground and a background, and the simultaneously maintaining step includes:

stopping and redisplaying writing of a screen when a session is moved to the background without saving the screen in memory.

14. (Previously Presented) The method of Claim 11 wherein the simultaneously maintaining step includes:

providing virtual machines;

writing to a virtual buffer when at least one of the virtual machines is in the background;
sending a signal to a graphics application;
sending a signal from the application out to the server to command it to stop sending display when the application is switched to the background so that traffic relating to the graphics application between the terminal and server is stopped;
commanding the server to redisplay the screen when the application is switched back to the foreground.

15. (Previously Presented) The method of Claim 11 wherein the simultaneously maintaining step includes:

stopping of sending and receiving data to and from the server when an application resides in a background session;

commanding the server to refresh the data for the application when the application is switched to a foreground.

16. (Previously Presented) The terminal of Claim 1 wherein the terminal is configured to provide windowing functionality to permit use of the application programs resident on the server, without requiring more than application data to be transmitted from the server.

17. (Previously Presented) The utility of Claim 6 wherein the terminal is permitted to use the application programs resident on the server, without requiring more than application data to be transmitted from the server.

18. (Previously Presented) The method of Claim 11 wherein the terminal is permitted to use the application programs resident on the server, without requiring more than application data to be transmitted from the server.

19. (Previously Presented) The terminal of Claim 1 wherein the terminal is configured to access the application programs resident on the server without executing locally the application programs resident on the server.

20. (Previously Presented) The terminal of Claim 1 wherein the terminal is a thin-client.

21. (New) A terminal for displaying application program information in a windowing environment comprising:

a processor adapted to receive windowing information supplied by application programs executing on a remotely located application server, the application programs resident on the server;

a display configured to display the windowing information supplied by the application programs executing on the server; and

means for facilitating simultaneously maintaining more than one connection for the application programs between the terminal and server,

wherein the means for facilitating simultaneously maintaining includes virtual machines, wherein at least one of the virtual machines has a text buffer so when the at least one of the virtual machines is in a background it has a virtual buffer that it can write to and it can continue to run in the background, and

wherein at least one of the virtual machines is configured to send a signal to a graphics application, and the application can send a signal to the server to command it to stop sending display when the application is switched to the background so that traffic relating to the application between the terminal and server is stopped, and the server is configured to be commanded to redisplay a screen when the application is switched back to a foreground.

22. (New) A utility for displaying application program information in a windowing environment on a terminal having a processor, the utility comprising a remotely located application server for executing application programs resident on the server and for supplying windowing information of the application programs to the terminal, the terminal having a display configured for displaying the windowing information, the utility further comprising:

means for simultaneously maintaining more than one connection for the application programs between the terminal and server,

wherein the means for simultaneously maintaining includes virtual machines,

wherein at least one of the virtual machines has a text buffer so when the at least one of the virtual machines is in a background it has a virtual buffer that it can write to and it can continue to run in the background, and

wherein at least one of the virtual machines is configured to send a signal to a graphics application, and the application can send a signal to the server to command it to stop sending display when the application is switched to the background so that traffic relating to the application between the terminal and server is stopped, and the server is configured to be commanded to redisplay a screen when the application is switched back to a foreground.

23. (New) A method for displaying application program information in a windowing environment comprising the steps for:

receiving at a terminal windowing information supplied by application programs executing on a remotely located application server, the application programs resident on the server;

displaying the windowing information supplied by the application programs executing on the server; and

facilitating simultaneously maintaining more than one connection for the application programs between the terminal and server,

wherein the step for facilitating simultaneously maintaining includes:

providing virtual machines;

writing to a virtual buffer when at least one of the virtual machines is in a background;

sending a signal to a graphics application;

sending a signal to the server to command it to stop sending display when the application is switched to the background so that traffic relating to the application between the terminal and server is stopped; and

commanding the server to redisplay a screen when the application is switched back to a foreground.

24. (New) A computer-readable medium or media encoded with instructions for displaying application program information in a windowing environment, the instructions comprising code for:

receiving at a terminal windowing information supplied by application programs executing on a remotely located application system, the application programs resident on the system;

displaying at the terminal the windowing information supplied by the application programs executing on the system; and

facilitating simultaneously maintaining more than one connection for the application programs between the terminal and system,

wherein the terminal is adapted to receive the windowing information,

wherein the terminal is configured to display the windowing information, and

wherein the terminal does not execute locally the windowing information.

25. (New) A computer-readable medium or media encoded with instructions for displaying application program information in a windowing environment, the instructions comprising code for:

receiving at a terminal windowing information supplied by application programs executing on a remotely located application system, the application programs resident on the system;

displaying the windowing information supplied by the application programs executing on the system; and

facilitating simultaneously maintaining more than one connection for the application programs between the terminal and system,

wherein the code for facilitating simultaneously maintaining includes code for:

providing virtual machines;

writing to a virtual buffer when at least one of the virtual machines is in a background;

sending a signal to a graphics application;

sending a signal to the system to command it to stop sending display when the application is switched to the background so that traffic relating to the application between the terminal and system is stopped; and

commanding the system to redisplay a screen when the application is switched back to a foreground.